

Hen Harrier Monitoring 2019

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#### SEEN A HEN HARRIER?

We would be very interested in any casual sightings of Hen Harrier in your area. The Golden Eagle Trust are the Project partners undertaking annual monitoring of Hen Harrier within the SPAs and also monitor a range of other species as part of the Programme.

You can let the Project know in confidence by either contacting your local Project Officer; by submitting a sighting via the Contacts Page on our website; by emailing the Project; or, by contacting the Hen Harrier Monitoring Team Manager:

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# The Hen Harrier Programme HEN HARRIER MONITORING

The determination of eligibility for certain Payments in the Hen Harrier Programme is based on a robust annual Hen Harrier Monitoring campaign carried out by the Hen Harrier Project. In 2019, extensive monitoring of breeding Hen Harrier was carried out across all the SPAs in Ireland by the Golden Eagle Trust Monitoring Team. Surveys for breeding Hen Harrier are undertaken between March and August in each year of the Programme. The objectives of Hen Harrier Monitoring are to establish the occupancy of territorial breeding birds in each SPA and determine whether a breeding attempt was initiated (i.e. nesting) and to establish the breeding outcome (i.e. success or failure of a nest and if successful, establish the number of fledged young). Nest visits are not undertaken as part of the monitoring.

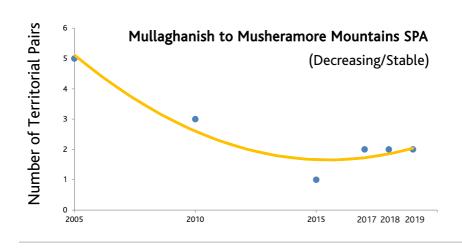
Suitable Hen Harrier habitat in the SPAs are surveyed from Vantage Points (VPs) that provide good views of the study area. More than 609 individual VP observations were undertaken across the SPA network in 2019, equivalent to over 1,377 hours of surveyor effort. All 55 10km squares which overlap SPAs were surveyed during 2019.

In 2019 there were 56 confirmed territories and 7 possible breeding pairs of Hen Harrier within the SPAs (a population range of 56 - 63 pairs). This is slightly less than the total numbers of breeding pairs recorded within the SPAs in 2017 (58 - 70 pairs) and 2018 (53 - 68 pairs). A comparison of the estimated Hen Harrier numbers in 2005 shows that the total SPA population in 2019 is now 33% smaller than that recorded during designation.

#### Mullaghanish to Musheramore SPA



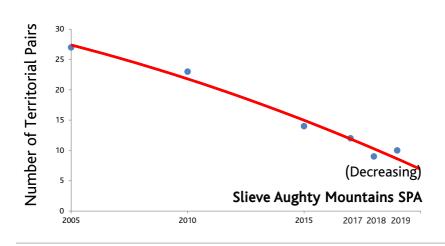
The Hen Harrier population in the Mullaghanish to Musheramore Mountains SPA at designation was five breeding pairs, however this population has undergone serious decline in the last 10 years. No pairs were recorded breeding in the SPA in 2014 and in recent years the population has been between one and two pairs. There were two confirmed pairs recorded during surveys in 2019, consistent with monitoring results in 2018 and 2017. Both pairs attempted to nest and were successful, however productivity was low with each nest fledging just one chick each.



#### Slieve Aughty Mountains SPA



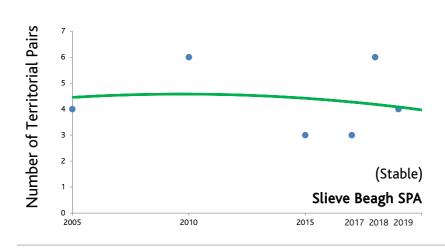
The breeding Hen Harrier population in the Slieve Aughty Mountains SPA has almost halved from twenty seven territorial pairs in the last 10 years. Confirmed breeding pairs in the SPA predominantly select second rotation prethicket forest for nesting. Recent monitoring data show a subsequent high nest failure rate and very low numbers of fledged young per confirmed pair. There were six confirmed territories recorded during surveys in 2019 and one possible territorial pair. Four of the six confirmed pairs were successful in fledging a total of seven young.



### Slieve Beagh SPA



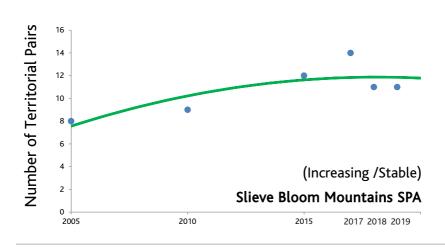
The small Hen Harrier population in Slieve Beagh SPA has undergone changes and fluctuations between years over the last 10 years, however this is part of a larger cross-border population within the Slieve Beagh - Mullaghfad - Lisnaskea SPA designation in Northern Ireland and there has been some interchange of breeding pairs between years. There were three confirmed pairs and one possible pair recorded during surveys in 2019. Two pairs within the SPA successfully fledging four young.



#### Slieve Bloom Mountains SPA



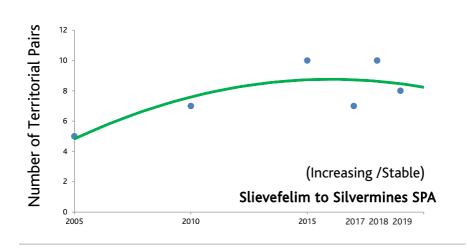
The large continuous open areas of heath/bog in Slieve Bloom Mountains SPA typically support a stable/slightly increasing population of breeding Hen Harrier. Most pairs in this region are recorded nesting in heather moorland. Forest plantation fringes the entire plateau and accounts for 61% of the land cover within the SPA. Numbers were consistent with 2018 with ten confirmed pairs recorded during surveys in 2019. The Slieve Blooms typically has the highest fledging rate of all SPAs. In 2018, only two pairs were successful in fledging a total of five young. A serious fire within the SPA may have contributed to the very low figures that year. However in 2019, six pairs successfully fledged 16 young, consistent with numbers of fledged young in 2017.



#### Slievefelim to Silvermines SPA



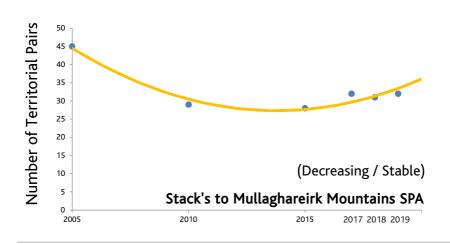
The breeding Hen Harrier population in the Slievefelim to Silvermines Mountains SPA is stable. Hen Harrier nest in a range of habitats (heath/scrub/pre-thicket forest) in the SPA, however recent monitoring data shows the majority of pairs select heather for nesting. There were seven confirmed pairs and one possible pair recorded during surveys in 2019 and an additional successful pair recorded outside the SPA boundary. Of the seven pairs in the SPA, only one nest was successful fledging just one chick. There were a number of failures late in the nestling stage likely due to predation. Unfortunately a very poor year for Hen Harriers in Tipperary.



## Stack's to Mullaghareirk Mountains SPA

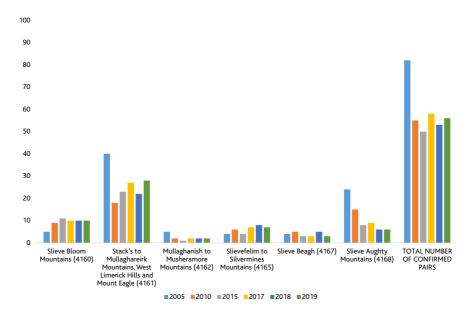


The Stacks, Mullaghareirks, Mount Eagle and West Limerick Hills SPA supports the highest proportion of breeding Hen Harrier within the SPA network. The population has declined by a third in the last ten years, however has stabilised in the last five years. There were twenty eight confirmed and four possible territories recorded in the SPA during surveys in 2019. There was one additional confirmed pair outside the designation boundary. Seventeen confirmed pairs were successful, fledging a total of 51 young. The SPA accounted for over 60% of the total Hen Harrier fledged in the network in 2019.



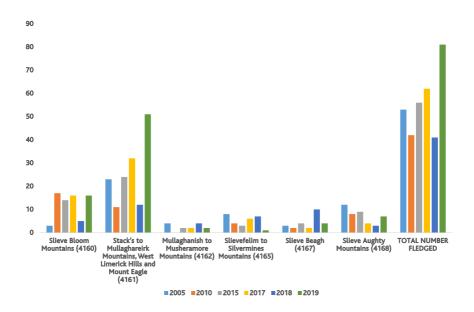
# Hen Harrier Population Trend within the SPA Network





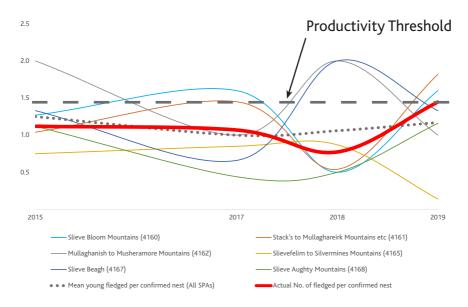
The six Special Protection Areas (SPAs) designated for breeding Hen Harrier were identified using data from the 2005 national survey. At that time the population in the SPAs was estimated to be 94 pairs. Since then the population trend within the SPAs since has been negative, with only 63 pairs in 2019. This is equivalent to a 33% decline since the SPAs were designated. There was a pronounced decline in the second largest SPA, the Slieve Aughty Mountains with a 74% drop in pairs in the last 14 years. The largest SPA, the Stack's to Mullagherierk Mountains, West Limerick Hills and Mount Eagle had undergone a serious decline since designation, however the population appears to have stabilised, albeit at a lower level. Numbers within the remaining four SPAs fluctuate annually between years however are considered to be stable (see Pages 1-6). The graph shows changes in confirmed pairs only.

### Hen Harrier Productivity within the SPA Network



Productivity is quantified by the number of fledged young in each SPA. For the Hen Harrier population to be capable of maintaining itself, or expanding, reproduction and survival must be greater than the combined effects of mortality and dispersal to other areas. Productivity can be linked to habitat availability, quality, predation pressure and weather. As the graph shows, productivity between sites and between years in the SPA network can vary, however 2019 was a productive year overall with a total of 81 young birds fledged. This is the highest number of fledged young known within the network in the last 14 years. The gains were most pronounced in the Stack's to Mullagherierk Mountains, West Limerick Hills and Mount Eagle SPA. There was also welcome improvement in the Slieve Aughty Mountains SPA and in the Slieve Bloom Mountains SPA compared to 2018. The Slievefelims to Silvermines Mountains SPA is a real concern with the lowest productivity recorded in 2019.

# Fledged Young per Confirmed Nest



The numbers of fledged chicks per pair of Hen Harrier is a useful measure of breeding success. Research indicates that for the Hen Harrier populations to be stable or expanding (productivity threshold) the number of chicks must exceed 1.45 per breeding pair. Nationally the mean number of fledglings per breeding pair is currently around 0.94, hence a national population decline. SPA monitoring data (2015 - 2019) shows that mean fledging rate across the SPA network ranges from 0.99 - 1.25 chicks fledged per breeding pair. This is below what is required for the population to be self-sustaining. Breeding success varies considerably between the different SPAs and from year to year. There are a large numbers of factors that can influence nest success. These include habitat quality, predation, inclement weather, disturbance and nest abandonment. While overall breeding success in 2019 was the best since monitoring of the SPAs began it was still below the productivity threshold in 4 out of the 6 SPAs. The improvement in two areas shows that the Hen Harrier can recover if given the chance. With continued farmer co-operation in delivering improved habitat quality and prey resources, further increases are certainly possible.

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